vkAssistant(voice controlled Computer System) like Alexa using python3

PYTHON PROJECT

In this article you will learn to make a vioce controlled computer system like Alexa using Python3
vkAssistant takes your voice as input and then performs the required task.

What our vkAssistant can do?

1.It can search info from wikipedia
2.It can open frequently used websites like youtube, codeforces, google etc.
3.It can tell you the time
4.It can open pdf from a given location
5.IT CAN TELL YOU THE TOP CURRENT NEWS
6.IT CAN TELL YOU THE CURRENT WEATHER Conditions in your CITY
7.IT CAN PLAY MUSIC

Modules of python used:

```
1. pyttsx3
2. dateandtime
3. requests
4. speechrecognition
5. feedparser
6. notify2
7. wikipedia
8. os
```

Installation:

pyttsx: module used to convert text into speech
Install it using following pip command:

```
pip install pyttsx
```

datetime: module to get the current date and time
Install it using following pip command:

```
pip install datetime
```

wikipedia: module used to get an informaton from the wikipedia
Install it using following pip command:

```
pip install wikipedia
```

speech_recognition: Python supports many speech recognition engines and APIs, including Google Speech Engine
Install it using following pip command:

```
pip install speech_recognition
```

requests:Requests is a Python module that you can use to send all kinds of HTTP requests.
Install it using following pip command:

```
pip install requests
```

notify2:used to show desktop notification
Install it using following pip command:

```
pip install notify2
```

feedparser:used for parsing a feed from the urls
Install it using following pip command:

```
pip install feedparser
```

Python3 Code

```python
""" Making an assistant like siri,ok google,alexa etc. using the python3"""
#module used to convert text into speech
import pyttsx3

#module to get the current date and time
import datetime

#module used to get an informaton from the wikipedia
import wikipedia

#module used to activate some of the some functions of the webbrowser
import webbrowser

#The OS module in python provides functions for interacting with the operating syste
import os

#Python supports many speech recognition engines and APIs, including Google Speech E
import speech_recognition as sr

#Requests is a Python module that you can use to send all kinds of HTTP requests.
import requests

import subprocess,sys

import feedparser #used for parsing a feed from the urls
import notify2 #used to show desktop notification
import time #moduleallows us to handle various operations regarding time, its conver


#initailizing the module which convert text to speech
engine = pyttsx3.init('espeak')
voices = engine.getProperty('voices')
rate = engine.getProperty('rate')
engine.setProperty('rate',rate-50)
#print(voices[16].id)  (used to check which voices are available in the system)


#speak function speaks the text given to it
def speak(audio):
    engine.say(audio)
    engine.runAndWait()


#wishMe function wishes the user according to time
def wishMe():
    hour = int(datetime.datetime.now().hour)
    if hour>=0 and hour<12:
        speak("Good Morning")
    elif hour>=12 and hour<18:
        speak("Good Afternoon")
    else:
        speak("Good Eveninng")
    speak("Hello i am vk's Assitant How may i help you")


#this function takes the speech as input
def takeCommand():
    r = sr.Recognizer()
    with sr.Microphone() as source:
        print("Listening.....")
        r.pause_threshold = 1
        audio = r.listen(source)
    try:
        print("Recognizing.....")
        query=r.recognize_google(audio,language='en-in')
        print(f"User said:{query.lower()}\n")
    except Excepton as e:
        print(e)
        print("Say that again please....")
        return "None"
    return query

# Source function for the news command
#uses the api of the times of india for fetching the news
def Parsefeed():
    f = feedparser.parse("http://timesofindia.indiatimes.com/rssfeedstopstories.cms"
    ICON_PATH = os.getcwd() + "/icon.ico"
    notify2.init('News Notify')

    for newsitem in f['items']:
        n = notify2.Notification(newsitem['title'], newsitem['summary'], icon=ICON_P
        n.set_urgency(notify2.URGENCY_NORMAL)
        n.show()
        n.set_timeout(15)
        #time.sleep(5)
        print(newsitem['title'])
        speak(newsitem['title'])
        print(newsitem['summary'])
        speak(newsitem['summary'])
        print('\n')
    speak("That's all for today")


# source function for the weather news
# uses the api of the openweathermap site for fetching the weather report
def format_response(weather):
    try:
        name = weather['name']
        desc = weather['weather'][0]['description']
        temp = weather['main']['temp']

        final_str = 'City: %s \nConditions: %s \nTemperature (°F): %s' % (name, desc
        speak("Apke sahar" + name+"main mausam kuch iss prakar hai" )
        speak("It's all "+desc+"in the sky" )
        speak("Tapman degree fahrenheit mai")
        speak(temp)


    except:
        final_str = 'There was a problem retrieving that information'
def get_weather(city):
    weather_key = 'a4aa5e3d83ffefaba8c00284de6ef7c3'
    url = 'https://api.openweathermap.org/data/2.5/weather'
    params = {'APPID': weather_key, 'q': city, 'units': 'imperial'}
    response = requests.get(url, params=params)
    weather = response.json()
    format_response(weather)


# main function
if __name__== "__main__":
    wishMe()
    count=10 # count takes the number of command
    while(count!=0):
        query = takeCommand().lower()
        print(f"User said:{query}\n")


        #logic for executing commands


        #for searching wikipedia
        if 'wikipedia' in query:
            speak('Searching wikipedia....')
            query = query.replace("wikipedia","")
            results = wikipedia.summary(query,sentences=2)
            speak("According to wikipedia")
            print(results)
            speak(results)


        #for opening websites like youtube,google,codeforces etc.
        elif 'open youtube'in query:
            webbrowser.open_new_tab("https://www.youtube.com/")
            speak("youtube opened")
            print("youtube opened")
        elif 'open google'in query:
            webbrowser.open_new_tab("https://www.google.com")
            speak("google opened")
            print("google opened")
        elif 'open codeforces'in query:
            webbrowser.open_new_tab("https://www.codeforces.com/")
            speak("codeforces opened")
            print("codeforces opened")


        #play music on youtube
        elif 'play saki saki'in query:
            webbrowser.open_new_tab("https://www.youtube.com/watch?v=-m_WlHjFvPE&lis

        #play music from folder
        elif 'play music'in query:

            music_dir = "//home//vishnu//Music"
            songs = os.listdir(music_dir)
            print(songs[1])
            webbrowser.open(os.path.join(music_dir,songs[1]))

        #tell me about Time
        elif 'the time' in query:
            strTime = datetime.datetime.now().strftime("%H:%M:%S")
            speak(f"Sir,the time is {strTime}")

        #open visual studio code(currently not working)
        # os.startfile attribute not found error(not working in linux mint working i
        elif 'open code' in query:
            codepath="/usr/share/code/code --unity-launch %F"
            opener ="open" if sys.platform == "darwin" else "xdg-open"
            subprocess.call([opener, codepath])
            #os.startfile(codepath)

        #open pdf from a particular path
        elif 'open pdf' in query:
            path = "/home/vishnu/Documents/1705210064.doc"
            # you can use your own path where pdf file is stored
            webbrowser.open(path)
            speak("pdf opened")
            print("pdf opened")


        #Aj ke samaachar
        elif "today's news" in query:
            try:
                Parsefeed()
            except:
                print("Error")


        #weather report
        elif "today's weather" in query:
            get_weather("lucknow")

        count=count-1   #reduces the count value by 1

"""Developer Vishnu Kumar (IET Lucknow)"""
```